

KAJIAN KARAKTERISTIK FISIK DAN KIMIA PELET BERBASIS BAHAN PAKAN TUNGGAL SETELAH 6 BULAN PENYIMPANAN

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INTISARI

Penelitian ini bertujuan untuk mengetahui karakteristik fisik dan kimia dari berbagai pelet berbasis bahan pakan tunggal yang telah disimpan selama 6 bulan. Pelet yang digunakan berasal dari berbagai bahan pakan meliputi kangkung kering, kleci, kulit kopi, gamal, bungkil kopra dan ampas bir. Masing-masing bahan pakan yang digunakan dalam penelitian ini diproduksi menjadi pelet sebanyak tiga kali sebagai replikasi dan kemudian disimpan dalam karung plastik pada suhu ruang selama 6 bulan. Uji organoleptik masing-masing pelet diamati setiap bulannya. Setelah 6 bulan, pelet dianalisis kualitas fisik dan kimia. Hasil penelitian menunjukkan pelet berbasis bahan pakan tunggal tidak berjamur dan tidak terserang kutu selama 6 bulan penyimpanan kecuali pelet gamal yang berjamur pada bulan ke-5. Kualitas fisik dan kimia pelet setelah 6 bulan penyimpanan menunjukkan hasil yang bervariasi tergantung dengan bahan asal beserta komposisi kimia yang terkandung. Pelet yang disimpan selama 6 bulan memiliki nilai *Pellet Durability Index* 89,40% – 99,80%, berat jenis 1,07 – 1,20 g/mL, *Modulus of Fineness* 6,33 – 6,71, *Modulus of Uniformity* kategori kasar, dan bahan kering 93,37% – 96,74%. Kemampuan absorpsi air pelet dari yang terendah hingga tertinggi berturut-turut adalah pelet bungkil kopra, pelet kulit kopi, pelet gamal, pelet kangkung kering, pelet ampas bir, dan pelet kleci. Kesimpulan penelitian ini yaitu pelet berbasis bahan pakan tunggal memiliki potensi untuk disimpan 6 bulan kecuali pelet gamal, karakteristik fisik dan kimia pelet berbasis bahan pakan tunggal setelah disimpan 6 bulan bervariasi menyesuaikan dengan bahan asalnya.

Kata kunci: Pelet tunggal, bahan pakan, uji fisik, uji kimia.

STUDY OF PHYSICAL AND CHEMICAL CHARACTERISTICS OF SINGLE FEED BASED PELLETS AFTER 6 MONTHS OF STORAGE

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ABSTRACT

This research aimed to determine the physical and chemical characteristics of various single feed based pellets that had been stored for 6 months. The pellets originated from various feed materials, including dried water spinach, kleci, coffee-dried skins, gamal leaves, copra meal, and beer dregs. Each feed material used in this study was replicated three times and processed into pellets, then stored in plastic bags at room temperature for 6 months. Organoleptic tests were conducted monthly for each pellet. After the 6-month storage period, the researchers analyzed the physical and chemical quality of the pellets. The research results indicated that single feed based pellets did not develop mold or insect infestations during the storage period, except for gamal pellets, which showed mold growth in the 5th month. The physical and chemical quality of the pellets after 6 months varied depending on the original material and its chemical composition. The stored pellets showed a Pellet Durability Index ranging from 89.40% to 99.80%, bulk density of 1.07 – 1.20 g/mL, Modulus of Fineness between 6.33 and 6.71, Modulus of Uniformity in the coarse category, and dry matter content of 93.37% – 96.74%. In terms of water absorption capacity, the pellets ranked from lowest to highest as follows: copra meal pellets, coffee-dried skin pellets, gamal pellets, dried water spinach pellets, beer dregs pellets, and kleci pellets. This research concludes that single feed based pellets have the potential to be stored for 6 months, except for gamal pellets. The physical and chemical characteristics of single feed based pellets vary after 6 months of storage, depending on their original material.

Keywords: Single feed pellet, feed, physical test, chemical test.